

Technology Development and Demonstration Programs Workgroup Meeting

International Diesel Retrofit Advisory Committee

Scott Rowland

California Environmental Protection Agency



Air Resources Board

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Mission Statement

- **To facilitate verification of retrofit technology for existing diesel engines by sharing information, experience and expertise and**
- **to promote retrofitting by developing demonstration programs.**

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Objectives of Diesel Retrofit Verification

- **PM reduction $\geq 85\%$**
or
- **PM levels of ≤ 0.01 g/bhp-hr**
- **Emission reduction claims are real and accurate**

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Verification Requirements

- **Emission reductions**
- **Durability**
- **Compatibility**
- **Fuel requirements**
- **Labeling**

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Technical Considerations

- **Regeneration requirements**
- **Engine performance**
- **Application compatibility**
- **Maintenance**
- **Fuel economy**
- **Fuel availability**

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Tentative Verification Timeline

- **Workshop -- Spring 2001**
- **Hearing -- Winter 2001-02**
- **Interim Verification -- Now**

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Retrofit Assessment Section

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Current Demonstrations

- **Ralph's Grocery Trucks**
- **LA County MTA**
- **BP Amoco Tanker Trucks**
- **San Diego School District**
- **Hertz Equipment Rental**
- **LA City Sanitation**
- **SCAQMD School Bus**

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Workgroup Objectives

- **Encourage participation**
- **Identify demonstration needs**
- **Identify challenging operating modes**
- **Enhance communication**
- **Share test and technical data**

MATRIX

- **ENGINE APPLICATION**
- **TECHNOLOGY**
- **USAGE**
- **VOLUME**
- **BASE EMISSION LEVEL**

DEMONSTRATION STATUS

- **SATISFACTORILY**
- **QUESTIONABLE**
- **NO DEMONSTRATION YET**

POTENTIAL PROBLEMATIC APPLICATIONS

- **OLD VEHICLES**
- **CONSTRUCTION EQUIPMENT**
- **OFF-ROAD EQUIPMENT**
- **OTHERS**

VERIFICATION ISSUES

- **REDUCTION THRESHOLD FOR OLDER VEHICLES**
- **CARRYOVER OF DATA**
- **PM/NOX BALANCE**
- **IN-USE PERFORMANCE**